Homework 3: Thinking procedurally

1. (a) Describe **three** features of modular programming. [6]

   (b) List **four** benefits of using modular programming techniques. [4]

2. The following steps are followed when processing invoices for a batch of customer orders. Details such as description and price of each stock item are held on a Product file. Discounts are calculated depending on the total value of the order. Details of all sales are held on a Sales file. Customer details are held on a Customer file.

   Open Product file, Customer file and Sales file
   initialise variables
   Read Sales file to find last invoice number
   for each order
       Read Customer file to get customer details
       print invoice number, customer details
       increment invoice number
       for each item on the order
           Input the item code, quantity
           look up description and price
           calculate price*quantity
           print line of order
       endfor
       calculate overall gross total
       calculate discount and net price
       print total discount and invoice total
       update Sales file
   endfor
   close files

   Draw a hierarchy chart showing the major tasks and subtasks involved. [5]

[Total 15 marks]